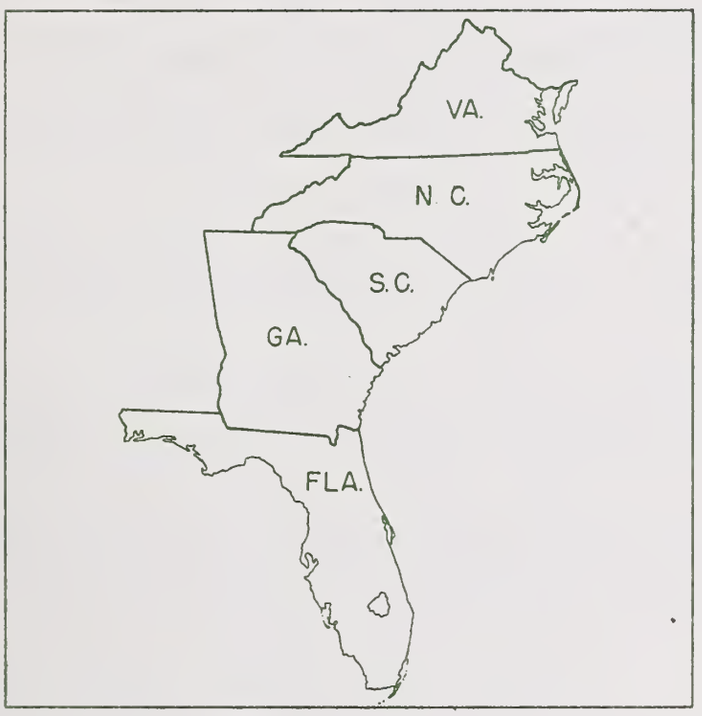
THE WORK OF THE FOREST SURVEY

IN THE SOUTHEAST



An Activity of the

Division of Forest Economics

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Southeastern Forest Experiment Station
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Asheville, N. C.
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THE FOREST SURVEY IN THE SOUTHEAST

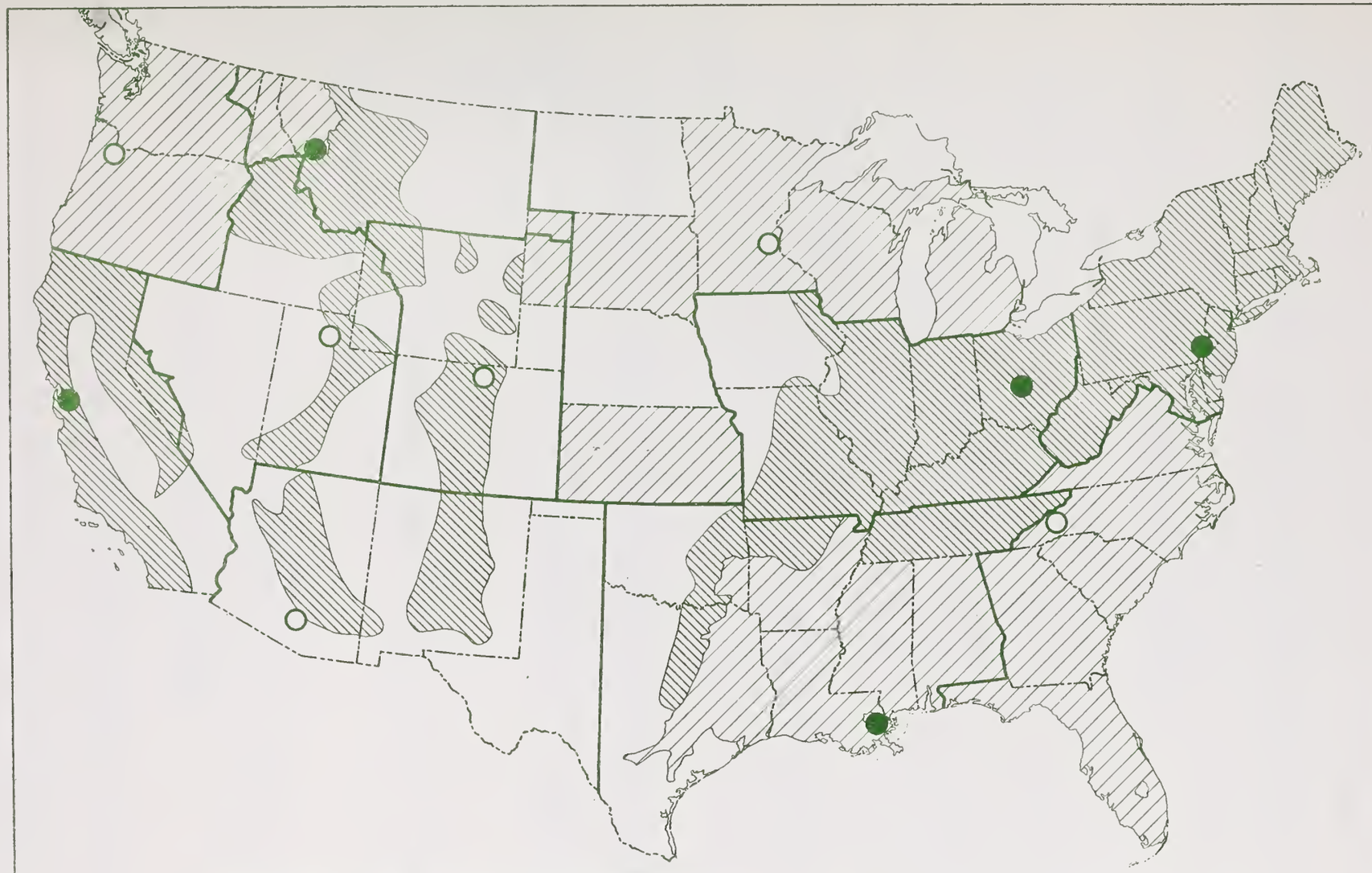
Foreword

The Forest Survey was set up by Congress in 1928 under Section 9 of the McSweeney-McNary Act, which said: "The Secretary of Agriculture is hereby authorized and directed to cooperate with the States and private agencies in making a comprehensive survey of present and prospective requirements for timber and other forest products in the United States, and of timber supplies, including a determination of present and potential productivity of forest land therein, and of such other facts as may be necessary in the determination of ways and means to balance the timber budget of the United States."

Public Law 321, 79th Congress, 1944, amends Section 9 (above) by increasing authorization to $750,000 annually for initial surveys; also authorizes appropriation of $250,000 annually for maintenance surveys of areas covered by initial surveys.

In the Southeast about $60,000 is made available annually for maintenance surveys, when the full $250,000 is appropriated.

FIELD STATUS OF NATION-WIDE FOREST SURVEY - JULY 1, 1946



Survey Objectives in the Southeast

Since all five states in the Southeastern Station's territory were covered by the initial survey in the period 1934-40, all future work will be maintenance surveys, financed from maintenance funds which are now limited to $250,000 annually for the Nation.

The broad objectives of these surveys will be (a) to provide forest resource statistics for each state as a part of the Nation-wide survey, and (b) to provide localized forest resource statistics for use of regional, state, and local agencies, and private industries and individuals insofar as finances permit.

Specifically the Forest Survey will determine, analyze, and report upon:

1. The extent, location, and condition of forest lands, and the quantity, kinds, quality, and availability of timber now standing on those lands.

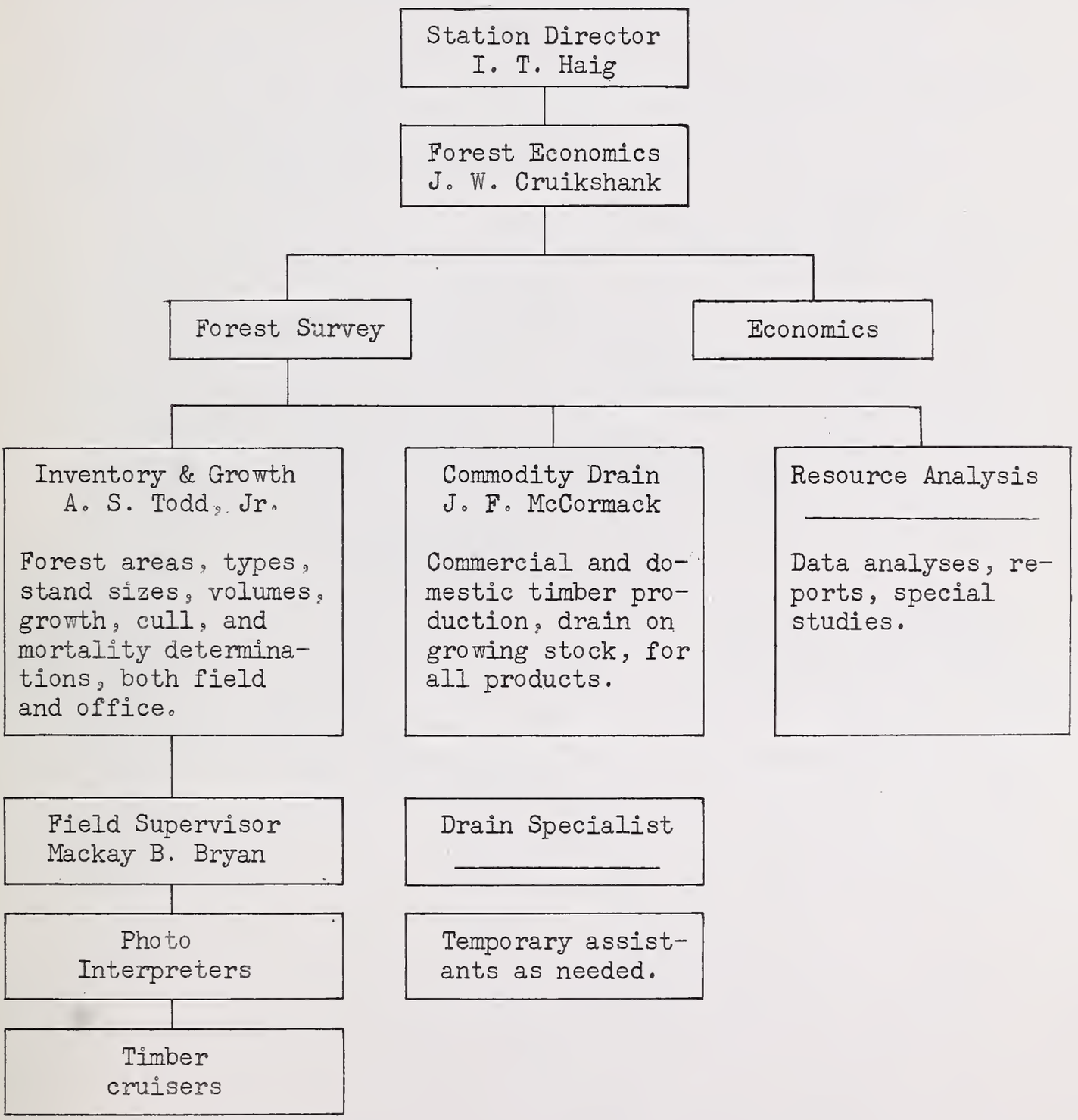
2. The rate of depletion through cutting, fire, insects, disease, and other causes.

3. The current and probable future rate of timber growth and the productive capacity of the forest land.

Estimates of present and probable requirements for forest products for the Nation are made by specialists in our Washington office. The Forest Survey in the Southeast will assist in this work by making local investigations as needed.

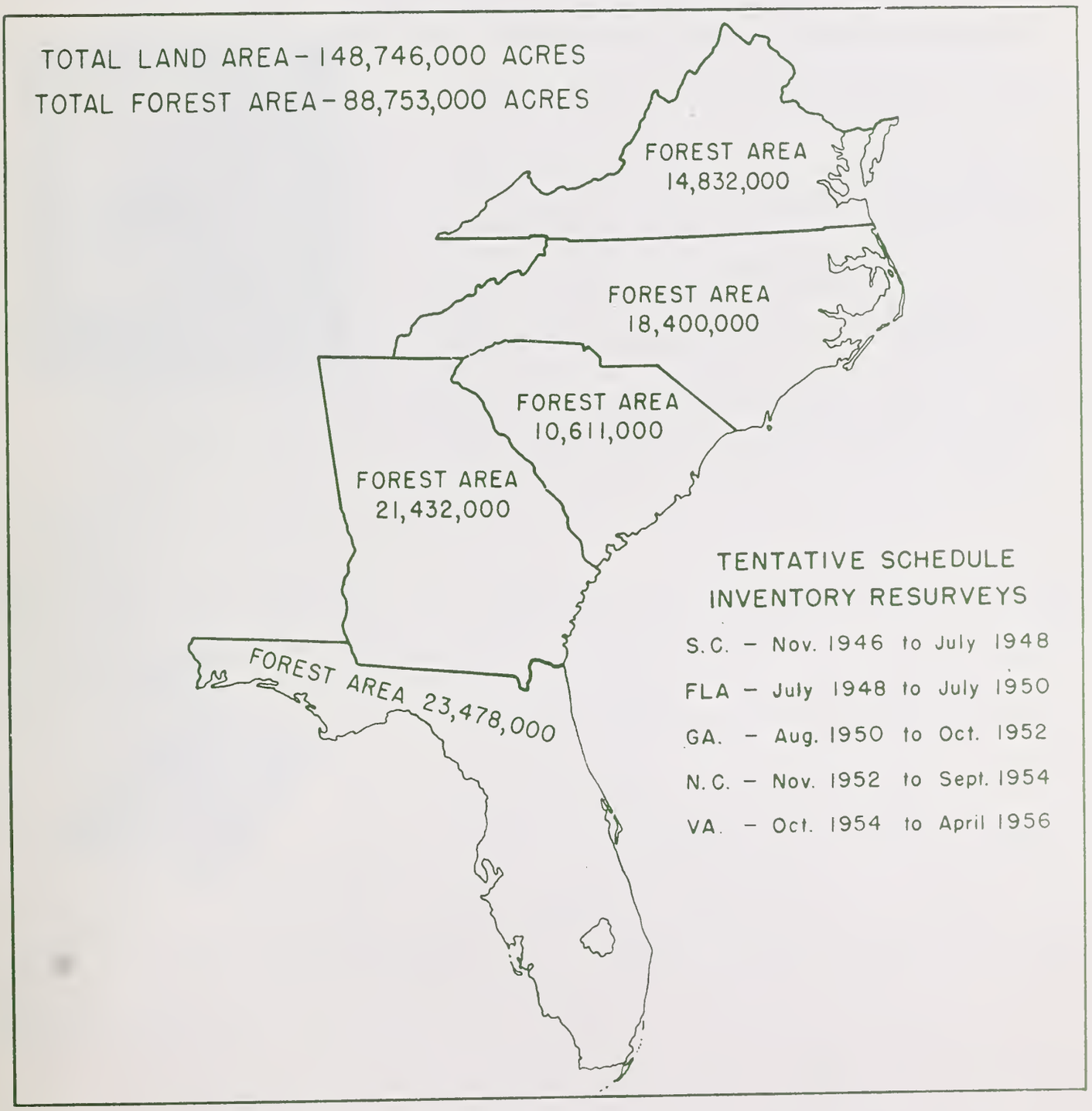
Organization of Forest Survey

The Forest Survey is the major activity of the Division of Forest Economics, one of the five divisions within the Southeastern Station.



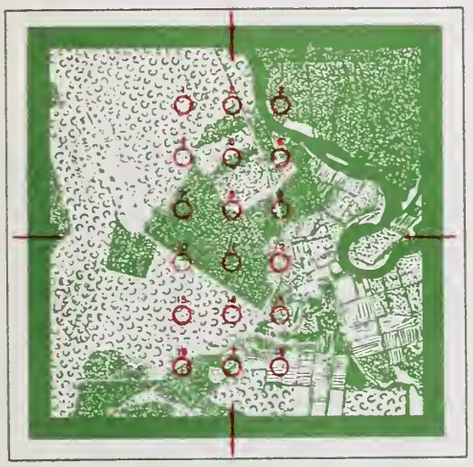
Schedule of Areas to be Resurveyed

Approximately 89 million acres of forest land will be resurveyed on a 10-year rotation. A tentative schedule is indicated. It is subject to change depending upon new aerial photography, financial cooperation, and other factors.

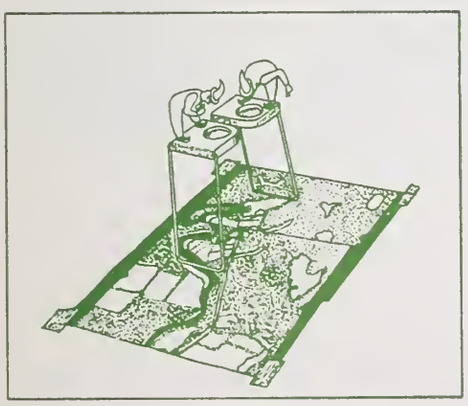


How the Forest Inventory is Made

The present system of inventory is based upon interpretation of aerial photographs supplemented by cruising of randomly selected ground plots. The county is the basic work unit. Steps in the procedure are as follows:



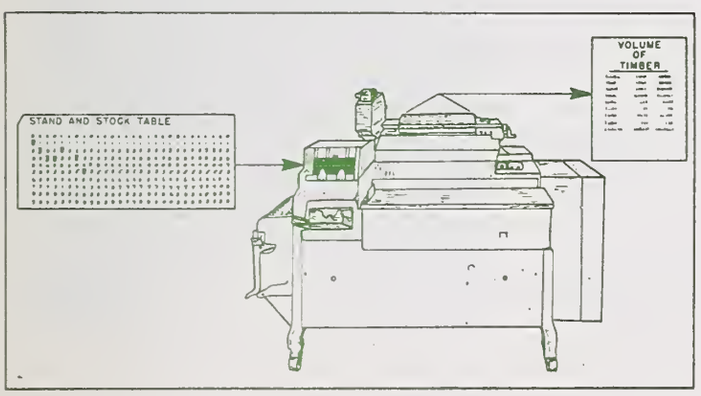
1. Acreages of forest land are estimated with the use of a dot grid placed on every third contact print along flight lines in each county. The proportion of dots falling on forest areas when applied to the gross area of the county yields a preliminary estimate of the acreage of forest land. This is later revised after certain field checks.



2. Every 5th plot listed as forest in step one is classified into forest type, stand class, and density class by careful stereoscopic analysis of the photographs. The proportion of plots falling in each classification when applied to the forest area of the county gives the area in each classification. These areas are revised following ground checking.

3. Timber cruisers make a detailed on-the-ground tally of every 3rd large saw-timber photo-plot, every 8th small saw-timber, every 17th pole-timber, and every 30th seedling, sapling, and denuded plot to obtain volume, growth, cull, and mortality data, and to check accuracy of photo classification. They also check a sample of the idle and agricultural plots.

4. Growth estimates are based on increment borings taken from trees of the various diameters and species in each forest type and stand class.



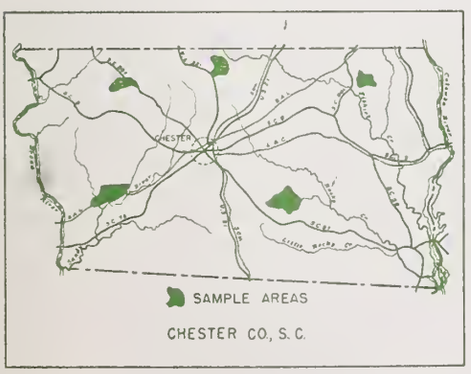
5. All field data are sent to the Asheville office for editing and are placed on punch cards for machine tabulation. Statistical techniques are used to correct for changes in photo classification, and to determine final figures on areas, volumes, and growth.

How Commodity Drain is Obtained

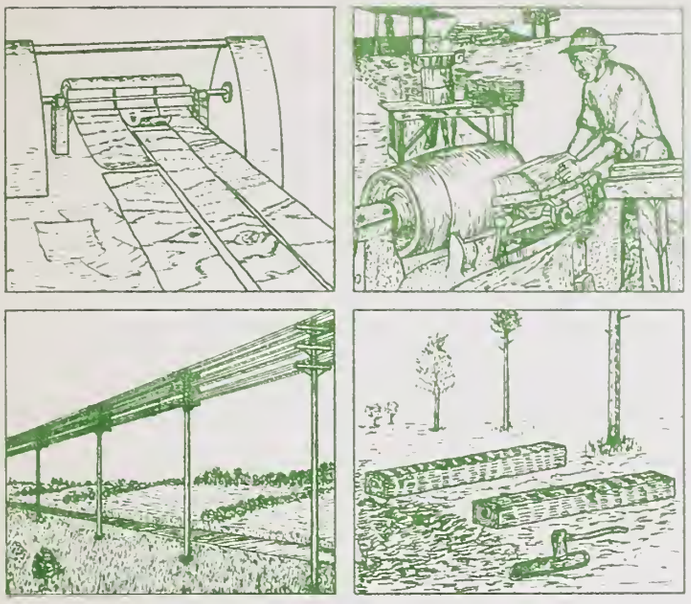
Commodity drain is the amount of wood cut for commercial and domestic use, plus the amount of usable material cut but left in the woods. An intensive study of all drain is made in a state at the time the inventory of standing timber is made. Drain for lumber and pulpwood is determined annually thereafter; for other products at longer intervals. Procedures in obtaining drain information are as follows:

1. Lumber production is obtained in cooperation with U. S. Bureau of the Census by a field canvass of the sawmills in the five states to obtain data on species, sizes, and geographic source of timber cut. Intensity of coverage may vary from year to year; for 1946 it was 100 percent.

2. Pulpwood production is obtained by a 100-percent field or mail canvass of all pulp mills in, or getting pulpwood from, the five states to obtain amount cut, species, and source of wood.



3. Fuel wood and fence post production is taken by sampling randomly drawn areas in each county of the state being inventoried to obtain amount and source of each commodity produced.



4. Other forest products. Production of veneer logs, cooperage bolts, poles and piles, hewn ties, and miscellaneous manufactured products is obtained by field or mail canvass of all plants and operations in state being inventoried.

5. Woods waste data come from special studies made on logging operations for lumber, pulpwood, and other products to obtain amount and class of usable material left in woods. These waste data are needed to convert production volumes for each product into commodity drain on the growing stock.

Reports

The following types of reports will be issued:

1. Statistical summary of data on forest areas, types, volumes, and related factors for each Survey unit--a grouping of several counties having similar forest characteristics and comparable economy. Will consist largely of tables and charts, and be issued within six months after completion of field work in unit. County data will be included where it is sufficiently accurate.

2. Special reports on drain for major products, balance of growth and drain for major regions of each state, volume in critical species, economic background material, etc.

3. Analytical report on each state, to include, in addition to tables, charts, and photographs, a critical analysis of the forest situation, its problems and opportunities, and ways and means of improving it. To be issued within one year of completion of field work in state.

4. Service reports. These reports will be issued to answer specific requests by public agencies, private industry or individuals for data on areas not covered by other types of reports listed, e.g., area and volume data for a group of counties not conforming to a Survey unit; for volume in certain sizes of certain species, etc.

Users of Survey Data

Every year since the start of the initial surveys in the Southeast hundreds of requests for unpublished Survey data and for Survey reports have been received and answered. While the class of users varies from year to year, the following tabulation shows the distribution among classes of users of the approximately 700 requests received in the period 1945-46:

Class of User	Percent of Requests
Pulp and paper industry	12
Lumber industry	7
Other forest industries	9
Timber brokers, banks, etc.	6
Railroads	5
Other non-forest industries	1
Total industry	40
Federal agencies	15
Other public agencies	15
Total public agencies	30
Librarians	6
Trade journals and associations	4
Schools and colleges	5
Individuals	15
Total miscellaneous	30
All users	100